



**U.S. Army Corps  
of Engineers**  
Baltimore District

# Public Notice

In Reply to Application Number  
CENAB-OP-RMS(NAB-2007-08123-M05 (Calvert Cliffs 3 Nuclear Project,  
LLC/Unistar Nuclear Operating Services, LLC)

Comment Period: September 3, 2008 to October 3, 2008

PN-08-60

THE PURPOSE OF THIS PUBLIC NOTICE IS TO SOLICIT COMMENTS FROM THE PUBLIC ABOUT THE WORK DESCRIBED BELOW. AT THIS TIME, NO DECISION HAS BEEN MADE AS TO WHETHER OR NOT A PERMIT WILL BE ISSUED.

The Baltimore District has received an application for a Department of the Army Permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act (33 U.S.C. 1344), as described below:

**APPLICANT:** Calvert Cliffs 3 Nuclear Project, LLC  
Mr. Thomas E. Roberts  
1650 Calvert Cliffs Parkway  
Lusby, Maryland 20657

Unistar Nuclear Operating Services, LLC  
Mr. Dimitri Lutchenkov  
750 E. Pratt Street, 14<sup>th</sup> Floor  
Baltimore, Maryland 21202

**LOCATION:** In the Chesapeake Bay and unnamed tributaries to the Chesapeake Bay, forested nontidal wetlands, Johns Creek and Goldstein Branch and their unnamed tributaries at Unistar's Calvert Cliffs site near Lusby, Calvert County, Maryland.

**WORK:** The applicants propose, in accordance with the attached plans, to perform site preparation activities and construct supporting facilities at the site of a proposed nominal 1,710 MW nuclear power generation station (Unit 3).

The Nuclear Regulatory Commission (NRC) is the lead Federal agency in the preparation of an Environmental Impact Statement (EIS) for work associated with the expansion of the power plant facilities. The Corps is a cooperating agency on the EIS. The environmental impact of construction activities in Waters of the U.S., including jurisdictional wetlands will be reviewed by the Corps and addressed in the EIS prepared by NRC. The Corps permit decision will be made following issuance of the EIS.

The following work is proposed in nontidal areas:

**Power Block:**

To clear and grade for construction of a power block, including reactor, turbine and associated structures, permanently impacting 2,470 square feet (0.06 acres) along 617 linear feet of stream bed.

**Laydown Areas:**

To clear and grade for construction of five construction laydown areas in various locations, permanently impacting 95,832 square feet (2.20 acres) of nontidal forested wetlands; 52,708 square feet (1.21 acres) of emergent wetlands; 114,563 square feet (2.63 acres) of open water; and 1,535 square feet (0.04 acres) along 384 linear feet of stream bed.

#### Cooling Tower:

To clear and grade for construction of a cooling tower, permanently impacting 32,670 square feet (0.75 acres) of nontidal forested wetlands and 5,780 square feet (0.13 acres) along 1,445 linear feet of stream bed.

#### Switchyard:

To clear and grade for construction of a switchyard, permanently impacting 179,903 square feet (4.13 acres) of nontidal forested wetlands and 16,710 square feet (0.38 acres) along 4,178 linear feet of stream bed.

#### Construction Access Road:

To clear and grade for construction of the Unit 3 construction access road which will require three separate road crossings: 1) to construct 200 linear feet of 30-inch diameter reinforced concrete pipe (RCP) and emplace a 15-foot by 15-foot riprap scour pad; 2) to construct 100 linear feet of 36-inch diameter RCP and emplace a 15-foot by 15-foot riprap scour pad; and 3) to construct 520 linear feet of two 54-inch diameter RCP and emplace a 40-foot by 40-foot riprap scour pad. The invert of each pipe will be depressed to match the slope and invert of the stream or wetland being crossed. This road work will permanently impact 31,363 square feet (0.72-acre) area of nontidal forested wetlands and 4,336 square feet (0.10 acres) along 1,084 linear feet of stream bed.

#### Heavy Haul Road:

To clear and grade for construction of a heavy haul road leading from the barge slip to the construction site, permanently impacting 2,570 square feet (0.06 acres) along 642 linear feet of stream bed.

The following work is proposed in tidal areas:

#### New Sheet Pile, Armor Removal, Armor Installation for Intake at Existing Forebay:

To construct the new Unit 3 intake by constructing a sheet pile wall extending approximately 180 linear feet from the existing shoreline to the existing baffle wall and extending approximately 90 feet channelward of the approximate mean high water (MHW) shoreline, creating an approximate 9,000 square foot wedged-shaped pool; to emplace approximately 75 linear feet of stone armor protection 205 feet channelward of the proposed wall; to remove approximately 50 feet of existing shoreline armor protection in order to construct the proposed sheet pile wall; to remove approximately 60-feet of armor within the wedged shape pool; and to install a temporary sheet piling wall in uplands and extending out into the wedge-shaped pool approximately 30 feet channelward to facilitate dewatering, installation of the pipe and the associated trash rack.

The area within the wedged shaped pool surrounded by the pipe line sheet piling will be dewatered and dredged by hydraulic or mechanical method to create an approximately 30-feet wide by 30-feet long by 25-feet deep area, resulting in approximately 900 cubic yards of sand and gravel, which will be deposited at an existing upland (non-wetland), environmentally controlled area at the Lake Davies laydown area on site. After dredging, two 60-inch intake pipes with trash racks at the pipe openings, extending approximately 20 feet channelward of the approximate MHW shoreline, to a bottom elevation of -25 feet mean low water, will be installed. After installation of the pipes and associated trash racks, approximately 80 linear feet of shoreline armor protection extending 10 feet channelward of the approximate MHW shoreline will be emplaced within the wedged-shaped area. After this work is completed, the temporary sheet pile wall around the 60-inch intake pipes will be removed, allowing the area to flood and submerge the pipes.

#### Discharge Pipe:

A 30-inch high density polyethylene (HDPE) discharge pipe with a three single port diffuser outfall structure approximately 550 linear feet channelward of the approximate MHW shoreline and depressed 4 feet below the bay bottom will be installed using hydraulic or mechanical dredging methods. The discharge point will be elevated 3 feet above the bay bottom. This installation will temporarily impact approximately 38,500 square feet, approximately 0.9

acres, along 550 linear feet of the bay bottom. Additionally, a 20-foot by 40-foot riprap scour pad will be installed at the diffuser outfall permanently impacting 800 square feet, 0.02 acres. Approximately 7,000 cubic yards of existing material dredged for the pipe installation will be reused as trench fill (approximately 5,800 cubic yards) with the remainder (approximately 1,200 cubic yards) being deposited at an existing upland (non-wetland), environmentally

controlled area at the Lake Davies laydown area on site. The pipe will be installed with a minimum of 4 feet of cover to protect it from storms and snagging by small boat anchors. Turbidity curtains are anticipated during the work to contain suspended sediments.

#### Restoration of Barge Unloading Facility including Maintenance and New Dredging:

To facilitate receipt of equipment and materials for the construction of the plant, two existing pile cap crane supports and one mooring bollard will be removed. The existing barge slip will be restored and extended to re-establish use of an approximately 1,500-foot by 130-foot (average width), 195,000 square foot area to a bottom elevation of -16 feet mean low water, requiring approximately 50,000 cubic yards of hydraulic or mechanical dredging. Approximately 1,065-feet of the dredging is considered maintenance, and the remaining 435-feet is an extension beyond the original dredging limits and is required to reach the bottom elevation of -16 feet mean low water. Of the approximately 50,000 cubic yards of dredging required, 45,000 cubic yards are considered maintenance dredging, and 5,000 cubic yards are considered new dredging. Ten-year maintenance dredging is requested.

The dredge material will be characterized prior to use. The dredge material removed from the barge slip will either be used during the plant construction as sand bedding for underground pipe installation or deposited at an existing upland (non-wetland) environmentally controlled disposal area on site. Suspended sediments resulting from this work are anticipated to be contained by a floating turbidity curtain.

As a part of the restoration, a new sheet pile wall will be installed along the shore line in front of the existing bulk head which was built as a part of the original design. The bulk head will consist of a new sheet pile wall driven immediately in front of the existing remaining bulk head. This bulk head will be approximately 90 feet in length starting from the barge slip extending south to an existing outfall culvert. On the land side of the new sheet pile bulk head, a concrete apron will be placed along with a gravel apron to allow equipment to be off-loaded from barges with wheeled mounted transporters.

Near shore maintenance dredging will require removal of sediment which has mounded up over the past 30 years and will include restoration of an existing culvert outfall. Due to silt build up over the years, the discharge from this outfall meanders in a north-south direction prior to discharging into the barge slip area. The restoration activities in this area will include the emplacement of a 40-foot by 40-foot by 2-foot deep riprap apron extending approximately 40 feet channelward of the approximate MHW shoreline directly in front the existing outfall, allowing the discharge to flow directly in the bay as originally designed. The existing waterway depths range from approximately -0.00 feet to -16.0 mean low water within the proposed work area.

#### Unit 3 Fish Return:

A fish return system will be provided as a part of the intake design. To construct the proposed fish return outfall, an 18-inch diameter HDPE pipe will be installed in a mechanically excavated trench. The pipe will be installed 4.0 feet below the bay bottom and will emerge from the bay bottom 40 feet channelward of the approximate MHW shoreline. The outfall location will be protected with a 10-foot by 10-foot riprap apron extending approximately 48 feet channelward of the approximate MHW shoreline. To install the pipe, approximately 40 linear feet of the existing shoreline revetment will be removed, and approximately 500 cubic yards of material will be dredged within the work area. The dredged material will be returned to the trench after the pipe is placed, and the existing shoreline revetment will be restored to its original design after pipe installation. Turbidity curtains are anticipated during the work to contain suspended sediments.

The total proposed project would permanently impact 343,253 square feet, 7.88 acres, of forested nontidal wetlands; 52,707 square feet, 1.21 acres, of emergent nontidal wetlands; 114,563 square feet, 2.63 acres, of non-tidal open water; 33,400 square feet, 0.77 acres, along 8,350 linear feet stream bed portions; and 248,000 square feet, 5.7 acres, of tidal open waters (approximately 138,500 square feet, 3.2 acres, of the tidal open water impacts are maintenance dredging; approximately 109,000 square feet, 2.5 acres, is new dredging; approximately 52,500 square feet, 1.2 acres, of the new dredging will be backfilled). This work includes a total of 3,485 square feet, 0.08-acre area, of isolated forested wetland impact.

Site layout for this project was based upon an extensive site layout study to determine a layout that would most practicably avoid and minimize impacts to jurisdictional waters and wetlands. Efforts were made to avoid, to the extent possible, the long and short-term adverse impacts associated with the destruction or modification of wetlands and streams and to avoid direct or indirect support of new construction in wetlands and streams wherever there was a practicable alternative. The proposed impacts were further reduced through relocation of or reconfiguration of facility

components. Project siting was limited by design constraints, which allowed integration with the existing Units 1 and 2 and exclusion zones.

The applicant proposes on site and in kind wetland enhancement and creation methods and stream restoration and enhancement methods to mitigate for the proposed impacts. This work includes the enhancement of one manmade, abandoned sediment basin within the Lake Davies Disposal Area; the enhancement of portions of Johns Creek; the creation of forested and herbaceous wetland habitat within the largest manmade, abandoned, sediment basin on the Lake Davies disposal area; creation of forested wetland habitat within the Camp Conoy area; stream restoration; and stream enhancement. The wetland mitigation proposes to create an approximate 0.9 acres area of open water pond habitat; 1.3 acres of freshwater marsh; 7.2 acres of bottomland hardwood forest; eradication of invasive vegetation and enhancement of approximately 2.4 acres of bottomland hardwood forest; enhancement of wetlands abutting Johns Creek by eradication of invasive vegetation and enhancement of approximately 15.7 acres of bottomland hardwood forest; and creation of approximately 4.6 acres of forested wetland habitat. The stream mitigation proposes to restore stream functions along approximately 6,283 linear feet of stream portions by employing treatments such as instream habitat structures (cover logs, lateral/longitudinal diversity and root wads); bank stabilization (vegetative and bioengineering solutions); and riparian wetland enhancements (hydraulic and vegetative). The stream mitigation also proposes to enhance a total of approximately 4,146 linear feet of specific stream portions by improving aquatic habitat, constructing bank stabilization and planting native riparian vegetation. These projects will be monitored for a 5-year period and shall be protected in perpetuity through establishment of a legally binding protection mechanism.

The Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 04-267), requires all Federal agencies to consult with the National Marine Fisheries Service (NMFS) on all actions, or proposed actions, permitted, funded, or undertaken by the agency that may adversely effect Essential Fish Habitat (EFH). The project site lies in or adjacent to EFH as described under the MSFCMA for the *Scophthalmus aquosus* (windowpane flounder) juvenile and adult; *Pomatomus saltatrix* (blue fish) juvenile and adult; *Peprilus triacanthos* (Atlantic butterfish) eggs, larvae, juvenile, and adult; *Paralichthys dentatus* (summer flounder) larvae, juvenile, and adult; *Centropristus striata* (black sea bass) juvenile and adult, and the eggs, larvae, juvenile, and adult stages of *Sciaenops ocellatus* (red drum), *Scomberomorus cavalla* (king mackerel), *Scomberomorus maculatus* (spanish mackerel), and *Rachycentron canadum* (cobia), managed species under the MSFCMA. The project has the potential to adversely affect EFH or the species of concern by loss of spawning, nursery, forage, and/or shelter habitat. The project area is not a Habitat Area of Particular Concern (HAPC). The Baltimore District has determined that the adverse effects of this project would be more than minimal, although not substantial, and an abbreviated consultation will be conducted with NMFS. No mitigative measures are recommended to minimize adverse effects on EFH at this time. This determination may be modified if additional information indicates otherwise and would change the preliminary determination.

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

The applicant is required to obtain a water quality certification in accordance with Section 401 of the Clean Water Act from the Maryland Department of the Environment. Any written comments concerning the work described above which relate to water quality certification must be received by the Standards and Certification Division, Maryland Department of the Environment, Montgomery Park Business Center, 1800 Washington Boulevard, Suite 430, Baltimore, Maryland 21230-1708 within the comment period as specified above to receive consideration. Written comments concerning the work described above related to the factors listed above or other pertinent factors must be

received by the District Engineer, US Army Corps of Engineers, Baltimore District, PO Box 1715, Baltimore, Maryland 21230-1715, within the comment period as specified above to receive consideration. The 401 certifying agency has a statutory limit of one year to make its decision.

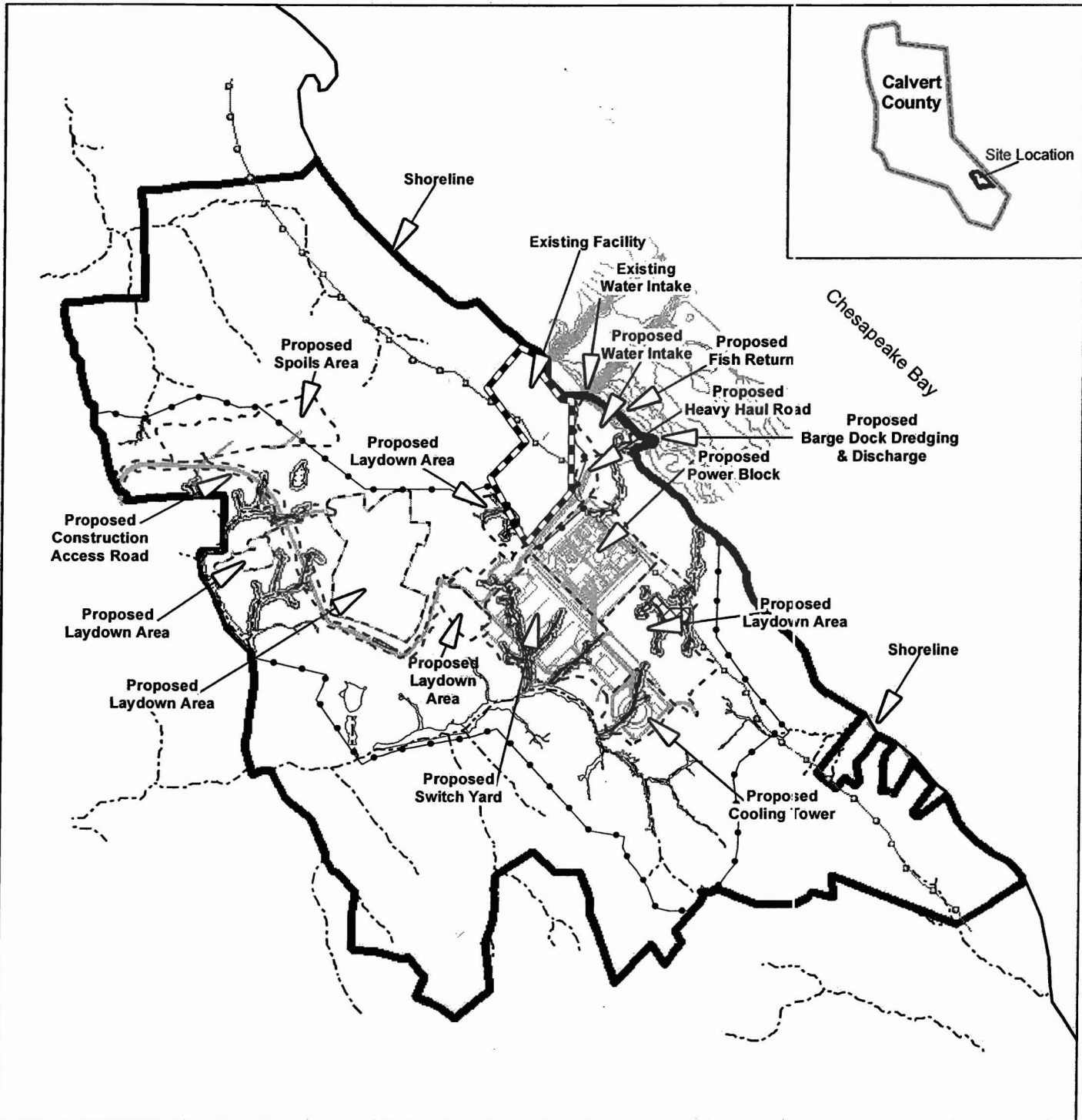
The applicant must obtain any State or local government permits which may be required.

A preliminary review of this application indicates that the proposed work will not affect listed species or their critical habitat pursuant to Section 7 of the Endangered Species Act as amended. As the evaluation of this application continues, additional information may become available which could modify this preliminary determination.

Review of the latest published version of the National Register of Historic Places indicates that no registered properties listed as eligible for inclusion therein are located at the site of the proposed work. Currently unknown archeological, scientific, prehistoric, or historical data may be lost or destroyed by the work to be accomplished under the requested permit.

The evaluation of the impact of the work described above on the public interest will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404 of the Clean Water Act. Any person who has an interest which may be adversely affected by the issuance of this permit may request a public hearing. The request, which must be in writing, must be received by the District Engineer, US Army Corps of Engineers, Baltimore District, PO Box 1715, Baltimore, Maryland 21203-1715, within the comment period as specified as above to receive consideration. Also, it must clearly state forth the interest which may be adversely affected by this activity in the manner in which the interest may be adversely affected.

It is requested that you communicated the foregoing information concerning the proposed work to any persons known by you to be interested and not being known to this office, who did not receive a copy of this notice.



PURPOSE: PLANT EXPANSION

DATUM: (NGVD 29)

PROJECT LATITUDE/LONGITUDE:

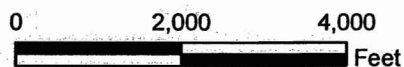
38.424133

-76.441598



## CONCEPT SITE PLAN

SCALE IN FEET



## CALVERT CLIFFS NUCLEAR POWER PLANT

IN:

PATUXENT / WEST CHESAPEAKE BAY

COUNTY OF: CALVERT STATE: MD

APPLICATION BY:

CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC  
AND UNISTAR NUCLEAR OPERATING SERVICES, LLC

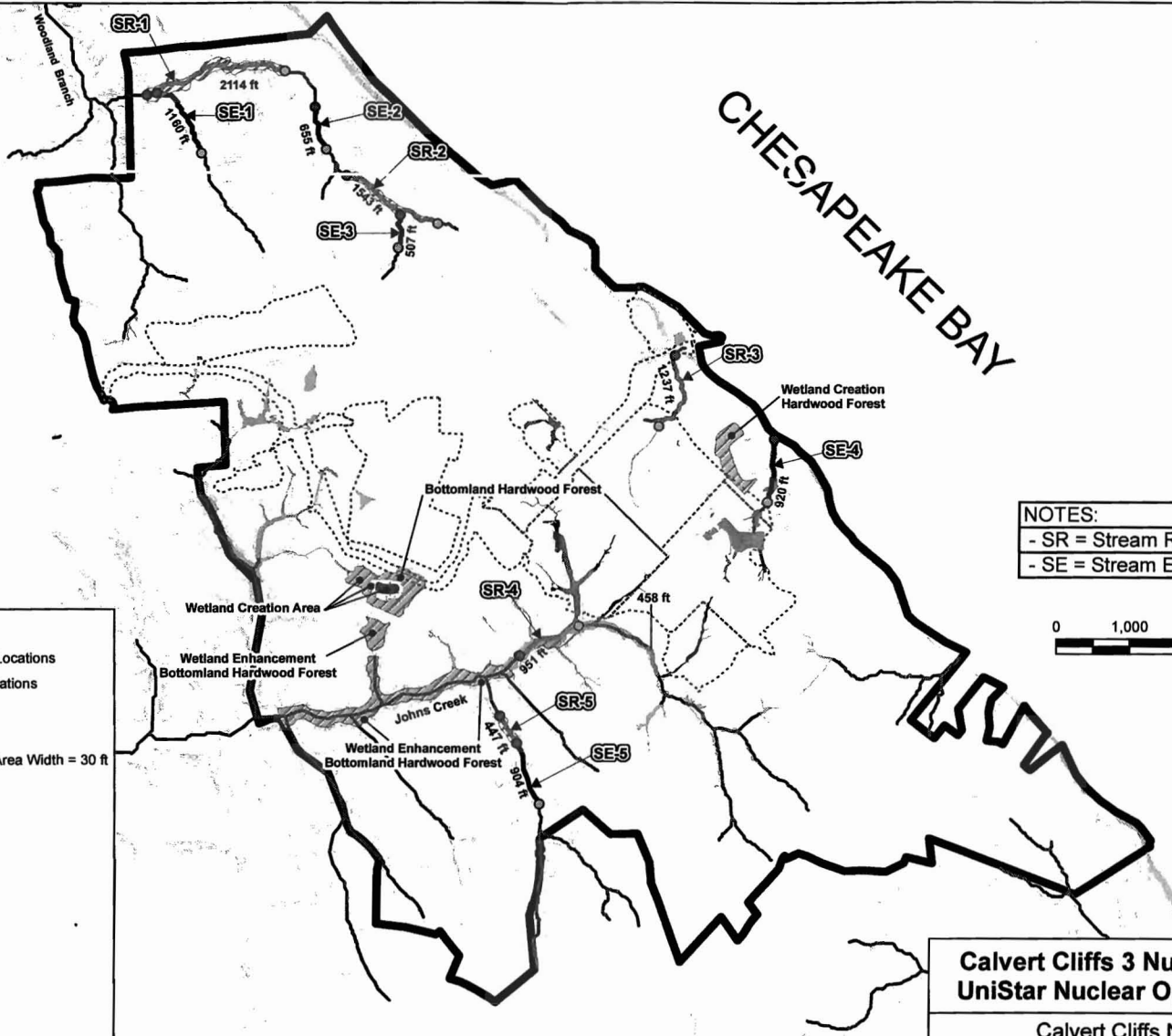
DATE: 5/09/08 REV1 7/14/08

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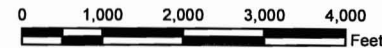


**Legend**

- Downstream Restoration/Enhancement Extent Locations
- Upstream Restoration/Enhancement Extent Locations
- ▨ Potential Ecological Up-Lift Area
- Stream
- Enhancement Credit / Potential Enhancement Area Width = 30 ft
- Restoration Credit
- Reference Reach
- Development Envelope
- ▨ Mitigation Wetland Area
- Open Water
- ▨ Marsh
- Property Boundary
- Area I Isolated Wetland
- Area II Jurisdictional Wetland
- Area II Isolated Area
- Area IV Jurisdictional Wetland
- Area VII Jurisdictional Wetland
- Area IX Jurisdictional Wetland
- Wetlands



**NOTES:**  
 - SR = Stream Restoration  
 - SE = Stream Enhancement



**Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC**

Calvert Cliffs Nuclear Power Plant  
 Sites and Quantities of Mitigation Areas

Prepared by/Date:  
 FAC / 04-22-08  
 Checked by/Date:  
 THP / 04-22-08  
 Project Number:  
 8093-07-6565



**Figure Number:**  
 9 rev. 2

Map Document: G:\Calvert Cliffs\roster\_5\_1\_06\MXDs\WMP\FIG\_9\_Stream\_Mitigation\_wmap.mxd  
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